

# STN Columbus

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
 NEWS 2 "Ask CAS" for self-help around the clock  
 NEWS 3 SEP 09 CA/Caplus records now contain indexing from 1907 to the present  
 NEWS 4 AUG 05 New pricing for EUROPATFULL and PCTFULL effective August 1, 2003  
 NEWS 5 AUG 13 Field Availability (/FA) field enhanced in BEILSTEIN  
 NEWS 6 AUG 18 Data available for download as a PDF in RDISCLOSURE  
 NEWS 7 AUG 18 Simultaneous left and right truncation added to PASCAL  
 NEWS 8 AUG 18 FROSTI and KOSMET enhanced with Simultaneous Left and Right Truncation  
 NEWS 9 AUG 18 Simultaneous left and right truncation added to ANABSTR  
 NEWS 10 SEP 22 DIPPR file reloaded  
 NEWS 11 SEP 25 INPADOC: Legal Status data to be reloaded  
 NEWS 12 SEP 29 DISSABS now available on STN  
 NEWS 13 OCT 10 PCTFULL: Two new display fields added  
 NEWS 14 OCT 21 BIOSIS file reloaded and enhanced  
 NEWS 15 OCT 28 BIOSIS file segment of TOXCENTER reloaded and enhanced  
 NEWS 16 NOV 24 MSDS-CCOHS file reloaded

NEWS EXPRESS NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003  
 NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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 NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
 NEWS WWW CAS World Wide Web Site (general information)

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:28:10 ON 01 DEC 2003

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 14:28:19 ON 01 DEC 2003

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STRUCTURE FILE UPDATES: 30 NOV 2003 HIGHEST RN 622330-21-6

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DICTIONARY FILE UPDATES: 30 NOV 2003 HIGHEST RN 622330-21-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

L1 STRUCTURE UPLOADED

=> d l1 str

L1 HAS NO ANSWERS

'STR ' IS NOT A VALID STRUCTURE FORMAT KEYWORD

Structure Formats

SIA ----- Structure Image, Attributes, and map table if it contains  
data. (Default)

SIM ----- Structure Image.

SAT ----- Structure Attributes and map table if it contains data.

SCT ----- Structure Connection Table and map table if it contains  
data.

SDA ----- All Structure Data (image, attributes, connection table and  
map table if it contains data).

NOS ----- NO Structure data.

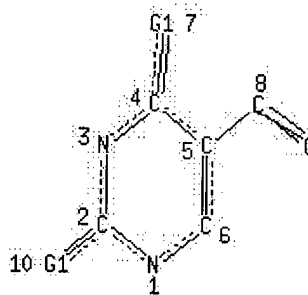
ENTER STRUCTURE FORMAT (SIA), SCT, SDA, SIM, SAT, NOS:end

=> d l1

L1 HAS NO ANSWERS

L1 STR

0 11 S 12



Page 1-A

9

Page 1-B

VAR G1=11/12

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4

## STN Columbus

NSPEC IS R AT 5  
NSPEC IS R AT 6  
NSPEC IS C AT 7  
NSPEC IS C AT 8  
NSPEC IS C AT 9  
NSPEC IS C AT 10  
DEFAULT MLEVEL IS ATOM  
MLEVEL IS CLASS AT 8 9 11 12  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

=> s l1 full  
FULL SEARCH INITIATED 14:29:21 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 2151 TO ITERATE

100.0% PROCESSED 2151 ITERATIONS 1211 ANSWERS  
SEARCH TIME: 00.00.01

L2 1211 SEA SSS FUL L1

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	148.55	148.76

FILE 'CAPLUS' ENTERED AT 14:29:26 ON 01 DEC 2003  
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FILE COVERS 1907 - 1 Dec 2003 VOL 139 ISS 23  
FILE LAST UPDATED: 30 Nov 2003 (20031130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l2  
L3 617 L2  
  
=> s l3 and py<1992  
14064135 PY<1992  
L4 121 L3 AND PY<1992  
  
=> s l4 and (DNA or nucleic)

## STN Columbus

638014 DNA

149153 NUCLEIC

L5 45 L4 AND (DNA OR NUCLEIC)

=> d 1-45 ti

L5 ANSWER 1 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Relationships between nucleotide incorporation rates and molecular parameters obtained by molecular modeling and chromatography

L5 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Preparation of fluorescence-labeled DNA by polymerase chain reaction (PCR)

L5 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Antimalarial compositions containing pyrimidine analog inhibitors of nucleic acid biosynthesis

L5 ANSWER 4 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Spectrally resolvable rhodamine dyes for nucleic acid sequence determination

L5 ANSWER 5 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Nucleic acid related compounds. 65. New syntheses of 1-( $\beta$ -D-arabinofuranosyl)-5(E)-(2-iodovinyl)uracil (IVArAU) from vinylsilane precursors. Radioiodine uptake as a marker for thymidine kinase herpes viral infections

L5 ANSWER 6 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Preparation of crosslinking oligonucleotides as nucleic acid hybridization probes

L5 ANSWER 7 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Palladium-catalyzed approach to 5-substituted uracil and uridine derivatives

L5 ANSWER 8 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Analysis of mutations in the thymidine kinase genes of drug-resistant varicella-zoster virus populations using the polymerase chain reaction

L5 ANSWER 9 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Nucleic acid related compounds. 61. Conversion of vinylsilanes to vinyl halides with xenon difluoride and metal halides. A versatile new route to 5-(2-halovinyl)pyrimidine nucleosides

L5 ANSWER 10 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Nucleic acid related compounds. 59. Solvent, not palladium oxidation state, is the primary determinant for successful coupling of terminal alkynes with idonucleosides

L5 ANSWER 11 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI DNA dynamics from a spin probe: dependence of probe motion on tether length

L5 ANSWER 12 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Application of chromatographic retention data in an investigation of a quantitative structure-nucleotide incorporation rate relationship

L5 ANSWER 13 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Palladium-catalyzed alkylations in aqueous media

L5 ANSWER 14 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Automated DNA sequence analysis and DNA fingerprinting

## STN Columbus

- L5 ANSWER 15 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Mapping restriction sites on **DNA** with fluorescent labels and interrupted-palindrome restriction enzymes
- L5 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Correlation of nucleotide incorporation rate and HPLC retention parameters of substituted nucleosides
- L5 ANSWER 17 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Sequence- and structure-dependent **DNA** base dynamics: synthesis, structure, and dynamics of site, and sequence specifically spin-labeled **DNA**
- L5 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Palladium-catalyzed synthesis of alkynylamino nucleosides. A universal linker for **nucleic acids**
- L5 ANSWER 19 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Effect of manganese ions on the incorporation of dideoxynucleotides by bacteriophage T7 **DNA** polymerase and Escherichia coli **DNA** polymerase I
- L5 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Preparation of 5-(3-aminoprop-1-ynyl)deoxyuridine derivatives and their use for synthesis of **DNA** and RNA labeled with nonradioactive markers.
- L5 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI **DNA** structural data from a dynamics probe. The dynamic signatures of single stranded, hairpin-looped, and duplex forms of **DNA** are distinguishable
- L5 ANSWER 22 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Design and synthesis of fluorescently labeled chain terminators for automated sequencing of **DNA**
- L5 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Preparation of (aminoalkynyl)nucleotides as intermediates for fluorescent chain terminators for **DNA** sequencing
- L5 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI **DNA** sequencing by fluorescence analysis
- L5 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Preparation of base-modified nucleosides suitable for non-radioactive label attachment and their incorporation into synthetic oligodeoxyribonucleotides
- L5 ANSWER 26 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Potent activity of 5-fluoro-2'-deoxyuridine and related compounds against thymidine kinase-deficient (TK-) herpes simplex virus: targeted at thymidylate synthase
- L5 ANSWER 27 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI A rigid and nonperturbing probe for duplex **DNA** motion
- L5 ANSWER 28 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Synthesis and application of derivatizable oligonucleotides
- L5 ANSWER 29 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI A system for rapid **DNA** sequencing with fluorescent chain-terminating dideoxynucleotides

## STN Columbus

- L5 ANSWER 30 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Substrate specificity of **DNA** polymerases. II. 5-(1-Alkynyl)-dUTPs as substrates of the Klenow **DNA** polymerase enzyme
- L5 ANSWER 31 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI The synthesis and biological properties of some 5-substituted-2'-deoxyuridines
- L5 ANSWER 32 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Rapid determination of thymidylate synthase activity and its inhibition in intact L1210 leukemia cells in vitro
- L5 ANSWER 33 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Incorporation of 5-substituted pyrimidine nucleoside analogs into **DNA** of a thymidylate synthetase-deficient murine FM3A carcinoma cell line
- L5 ANSWER 34 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Strategies for the measurement of the inhibitory effects of thymidine analogs on the activity of thymidylate synthase in intact murine leukemia L1210 cells
- L5 ANSWER 35 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Thymidylate synthetase-deficient mouse FM3A mammary carcinoma cell line as a tool for studying the thymidine salvage pathway and the incorporation of thymidine analogs into host cell **DNA**
- L5 ANSWER 36 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Induction of sister-chromatid exchange by 5-substituted 2'-deoxyuridines
- L5 ANSWER 37 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI **Nucleic** acid related compounds. 39. Efficient conversion of 5-iodo to 5-alkynyl and derived 5-substituted uracil bases and nucleosides
- L5 ANSWER 38 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI **Nucleic** acid related compounds. 40. Synthesis and biological activities of 5-alkynyluracil nucleosides
- L5 ANSWER 39 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI **Nucleic** acid related compounds. 31. Smooth and efficient palladium-copper catalyzed coupling of terminal alkynes with 5-iodouracil nucleosides
- L5 ANSWER 40 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Thymidylate synthetase as target enzyme for the inhibitory activity of 5-substituted 2'-deoxyuridines on mouse leukemia L1210 cell growth
- L5 ANSWER 41 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Effects of E-5-(2-bromovinyl)-2'-deoxyuridine and other selective antiherpes compounds on the induction of retrovirus particles in mouse BALB/3T3 cells
- L5 ANSWER 42 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Comparative study of the potency and selectivity of antiherpes compounds
- L5 ANSWER 43 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Antiviral **nucleic** acid derivatives. III. Crystal structure of 5-ethynyl-2'-deoxyuridine
- L5 ANSWER 44 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Incorporation of 5-substituted uracil derivatives into **nucleic** acids. Part IV. The synthesis of 5-ethynyluracil

## STN Columbus

L5 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI The preparation and properties of some 5-substituted uracil derivatives

=> d 23-25, 2, 6, 20 bib ab hitstr

L5 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1988:493540 CAPLUS

DN 109:93540

TI Preparation of (aminoalkynyl)nucleotides as intermediates for fluorescent chain terminators for DNA sequencing

IN Hobbs, Frank Worden, Jr.; Cocuzza, Anthony Joseph

PA du Pont de Nemours, E. I., and Co., USA

SO Eur. Pat. Appl., 40 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 251786	A2	19880107	EP 1987-305844	19870701 <--
	EP 251786	A3	19891206		
	EP 251786	B1	19941130		
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	US 5047519	A	19910910	US 1987-57565	19870612 <--
	CA 1340022	A1	19980901	CA 1987-540946	19870630
	DK 8703375	A	19880103	DK 1987-3375	19870701 <--
	NO 8702757	A	19880104	NO 1987-2757	19870701 <--
	NO 171981	B	19930215		
	NO 171981	C	19930526		
	ES 2066760	T3	19950316	ES 1987-305844	19870701
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	US 1987-57566		19870612		
	JP 1994-119539		19870702		
	JP 1996-221531		19870702		
	US 1991-780346		19911022		
	US 1991-780347		19911022		
	US 1992-981148		19921124		
	US 1993-981026		19930217		
	US 1994-181358		19940113		
OS	MARPAT 109:93540				
AB	The title compds. [I-IV; R = H, NH <sub>2</sub> ; R <sub>1</sub> = R <sub>2</sub> R <sub>3</sub> NZC≡C; R <sub>2</sub> , R <sub>3</sub> = H, C <sub>1</sub> -4 alkyl, protecting group; R <sub>4</sub> = sugar moiety Q, Q <sub>1</sub> , ether moiety Q <sub>2</sub> ; R <sub>5</sub> = H, (HO)2P(O), H <sub>3</sub> P2O <sub>6</sub> , H <sub>4</sub> P3O <sub>9</sub> ; when R <sub>7</sub> = R <sub>8</sub> = H, then R <sub>6</sub> = H, OH, F, NH <sub>2</sub> , N <sub>3</sub> ; when R <sub>7</sub> = H, R <sub>8</sub> = OH, then R <sub>6</sub> = H, OH; when R <sub>7</sub> = OH, R <sub>8</sub> = H, then R <sub>6</sub> = OH; Z = diradical moiety of 1-20 atoms] and their salts were prepd. for coupling with fluorescent dyes to prep. fluorescent chain terminators for DNA sequencing. 6-Methoxy-2-(methylthio)-9-(2,3-dideoxy-5-O-trityl-β-D-ribofuranosyl)-7-deazapurine, prepd. in 5 steps from 6-methoxy-2-(methylthio)-7-deazapurine, was iodinated by treatment with				

# STN Columbus

N-iodosuccinimide and the 7-iodo deriv. was de-O-methylated, oxidized to the sulfoxide and ammonolyzed, and detritylated to give azaguanosine IV (R = NH<sub>2</sub>, R<sub>1</sub> = iodo, R<sub>4</sub> = Q, R<sub>5</sub>-R<sub>8</sub> = H). This was coupled with HC≡CCH<sub>2</sub>NHCOCF<sub>3</sub> in the presence of (Ph<sub>3</sub>P)<sub>4</sub>Pd/CuI catalyst and the product converted to the triphosphate and deprotected to give IV (R = NH<sub>2</sub>, R<sub>1</sub> = H<sub>2</sub>NCH<sub>2</sub>C≡C, R<sub>4</sub> = Q, R<sub>5</sub> = H<sub>4</sub>P<sub>3</sub>O<sub>9</sub>, R<sub>6</sub>-R<sub>8</sub> = H). This was condensed with a xanthene deriv. (prepn. given) to give fluorescent chain terminator V.

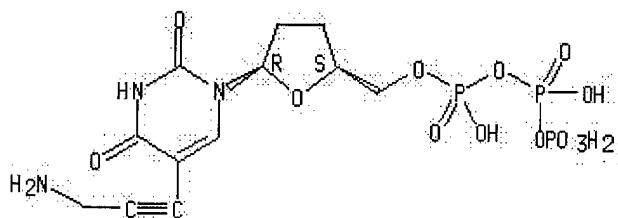
IT 114748-59-3P 114748-60-6P 115899-40-6P  
115899-42-8P 115899-44-0P 115899-45-1P  
115899-46-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as fluorescent chain terminator intermediate, for  
DNA sequencing)

RN 114748-59-3 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 5-(3-amino-1-propynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)

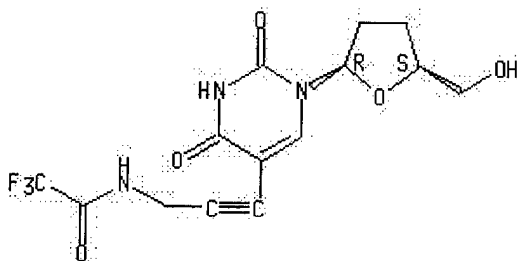
Absolute stereochemistry.



RN 114748-60-6 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[3-[(trifluoroacetyl) amino]-1-propynyl]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

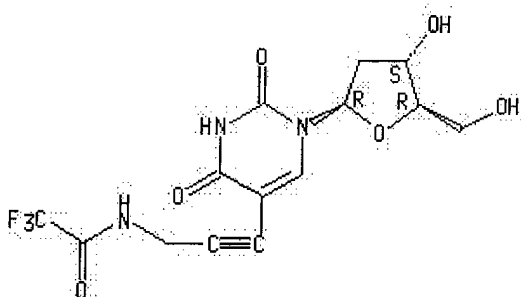


RN 115899-40-6 CAPLUS

CN Uridine, 2'-deoxy-5-[3-[(trifluoroacetyl) amino]-1-propynyl]- (9CI) (CA INDEX NAME)

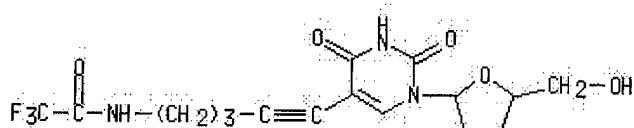
Absolute stereochemistry.





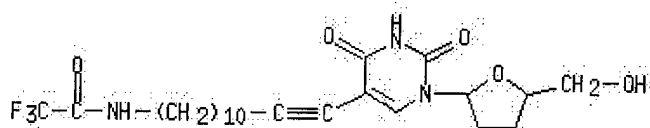
RN 115899-42-8 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[5-[(trifluoroacetyl)amino]-1-pentynyl]- (9CI)  
(CA INDEX NAME)



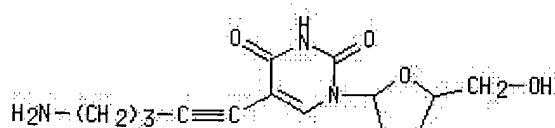
RN 115899-44-0 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[12-[(trifluoroacetyl)amino]-1-dodecynyl]- (9CI)  
(CA INDEX NAME)



RN 115899-45-1 CAPLUS

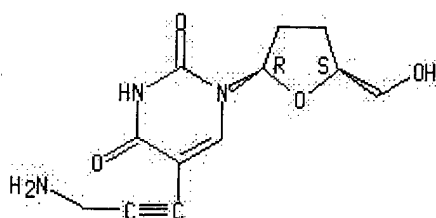
CN Uridine, 5-(5-amino-1-pentynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)



RN 115899-46-2 CAPLUS

CN Uridine, 5-(3-amino-1-propynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



## STN Columbus

L5 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1988:401856 CAPLUS

DN 109:1856

TI DNA sequencing by fluorescence analysis

IN Prober, James Merrill; Dam, Rudy Johan; Robertson, Charles William, Jr.; Hobbs, Frank Worden, Jr.; Trainor, George Leonard

PA du Pont de Nemours, E. I., and Co., USA

SO Eur. Pat. Appl., 66 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 252683	A2	19880113	EP 1987-305848	19870701 <--
	EP 252683	A3	19891123		
	EP 252683	B1	19950118		
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	NO 174369	C	19940420		
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	US 1991-780346		19911022		
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	US 1992-981148		19921124		
	US 1993-981026		19930217		
	US 1994-181358		19940113		

OS MARPAT 109:1856

AB A fluorescence-based system for DNA sequence anal. is described. A set of fluorescence-labeled DNA chain terminators was generated. Each of the 4 chain terminators corresponding to the 4 nucleotide basis in DNA carries a different fluorescent compd. DNA fragments to be sequenced can be labeled with these fluorescent compds. in a single vessel. The labeled DNA fragments of varying lengths are then sepd. by electrophoresis. A photometric detection system is used to identify the labeled bases and det. the DNA sequence.

IT 114748-59-3P 114748-60-6P 114748-72-0P

RL: PREP (Preparation)

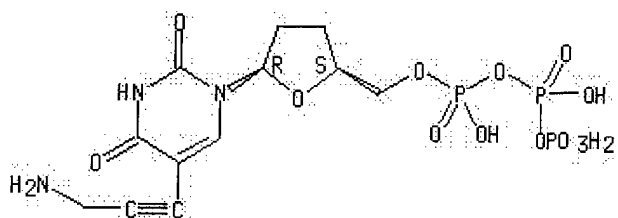
(prepn. of, detn. of DNA sequences by fluorescence anal. in relation to)

RN 114748-59-3 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 5-(3-amino-1-propynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

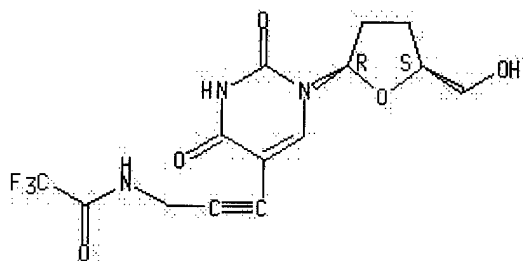
# STN Columbus



RN 114748-60-6 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[3-[(trifluoroacetyl)amino]-1-propynyl]- (9CI)  
(CA INDEX NAME)

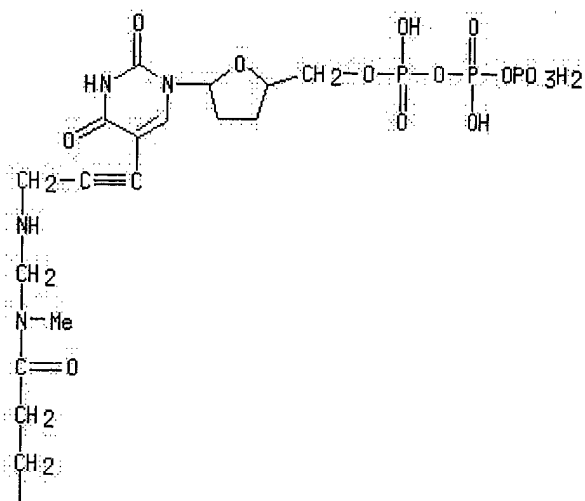
Absolute stereochemistry.

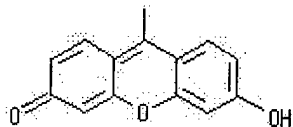


RN 114748-72-0 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 2',3'-dideoxy-5-[3-[[[3-(6-hydroxy-3-oxo-3H-xanthen-9-yl)-1-oxopropyl]methylamino]methyl]amino]-1-propynyl]- (9CI) (CA INDEX NAME)

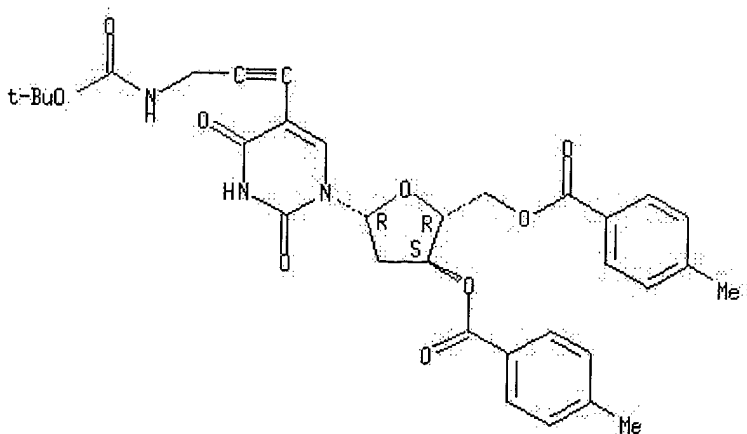
PAGE 1-A





L5 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN  
Full Text  
 AN 1988:187182 CAPLUS  
 DN 108:187182  
 TI Preparation of base-modified nucleosides suitable for non-radioactive label attachment and their incorporation into synthetic oligodeoxyribonucleotides  
 AU Haralambidis, Jim; Chai, Miao; Tregear, Geoffrey W.  
 CS Howard Florey Inst. Exp. Physiol. Med., Univ. Melbourne, Parkville, 3052, Australia  
 SO Nucleic Acids Research (1987), 15(12), 4857-76  
 CODEN: NARHAD; ISSN: 0305-1048  
 DT Journal  
 LA English  
 OS CASREACT 108:187182  
 AB A very mild and efficient procedure has been developed for the prepn. of C-5 substituted deoxyuridines. The substituent carries a masked primary aliph. amino group. These compds. are readily converted into their phosphoramidites and can be used to prep. oligonucleotides carrying one or more aliph. amino groups. Fluorescein isothiocyanate coupled to these compds. gives oligonucleotide probes carrying multiple fluorescein labels. These compds. have a free 5'-hydroxy group enabling additional 5'- end radioactive labeling for evaluation of their hybridization characteristics. Oligonucleotides carrying a long (11 atom) linker arm to the fluorescein hybridize more efficiently to mRNA than those carrying a short (4 atom) arm. The long linker arm derivs. are comparable to underivatized oligonucleotides in hybridizing to mRNA.  
 IT 114079-29-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and detoluoylation of)  
 RN 114079-29-7 CAPLUS  
 CN Carbamic acid, [3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



# STN Columbus

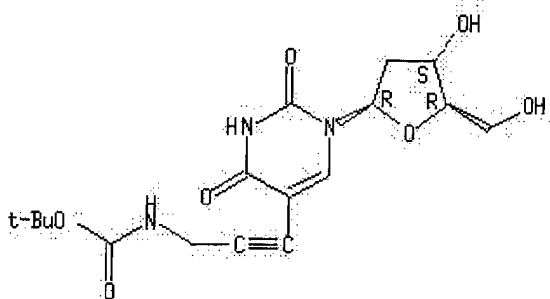
## IT 114079-30-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and dimethoxytritylation of)

RN 114079-30-0 CAPLUS

CN Carbamic acid, [3-[1-(2-deoxy-β-D-erythro-pentofuranosyl)-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



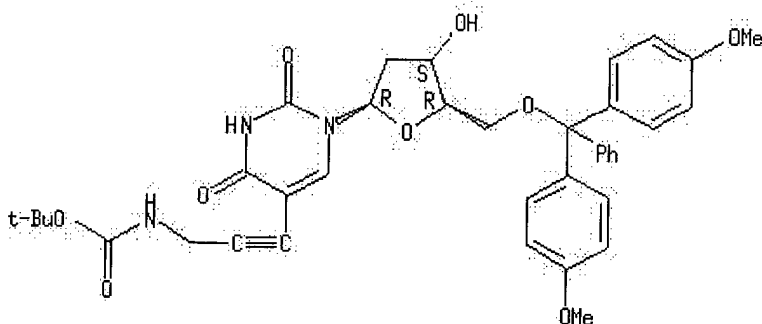
## IT 114079-31-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and reaction of, with bis(diisopropylamino)methoxyphosphine)

RN 114079-31-1 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



## IT 114079-33-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and reaction of, with nitrophenyl amino hexanoate deriv.)

RN 114079-33-3 CAPLUS

CN Uridine, 5-(3-amino-1-propynyl)-2'-deoxy-, 3',5'-bis(4-methylbenzoate), mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

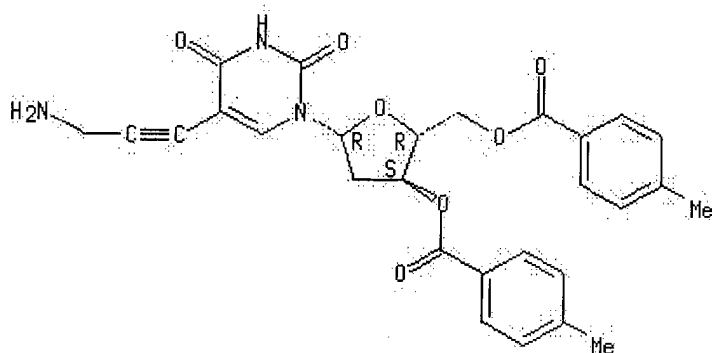
CM 1

CRN 114079-32-2

CMF C28 H27 N3 O7

# STN Columbus

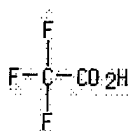
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 114079-34-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

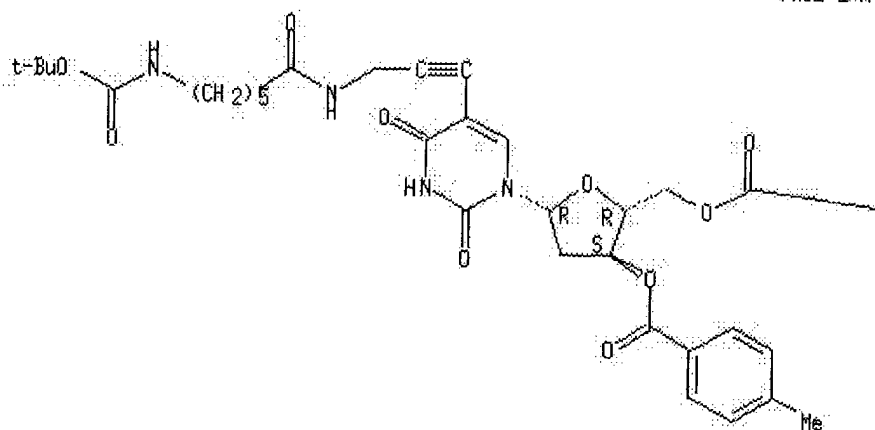
(prepn. and sequential detoluoylation and dimethoxytritylation of)

RN 114079-34-4 CAPLUS

CN Carbamic acid, [6-[[3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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IT 114079-35-5P 114079-36-6P 114103-42-3P

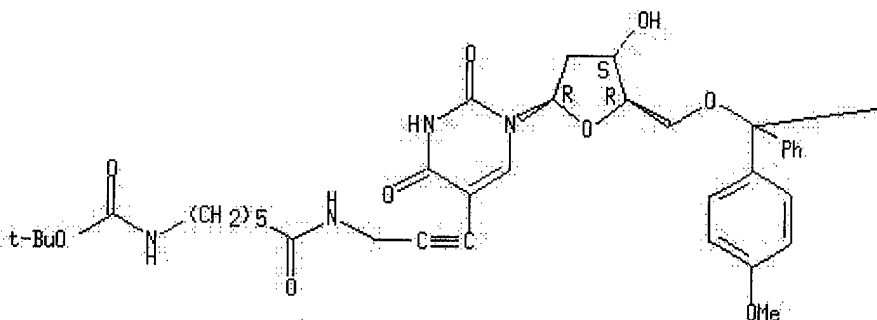
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, intermediate in synthesis of fluorescent-labeled  
oligodeoxyribonucleotides)

RN 114079-35-5 CAPLUS

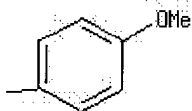
CN Carbamic acid, [6-[[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-  
β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-  
pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



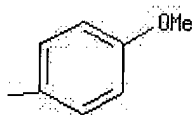
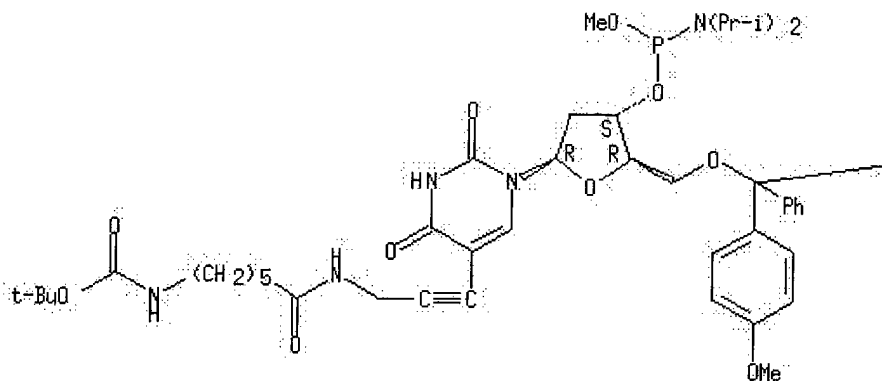
PAGE 1-B



RN 114079-36-6 CAPLUS

CN Carbamic acid, [6-[[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-  
[[bis(1-methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-  
pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-  
propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX  
NAME)

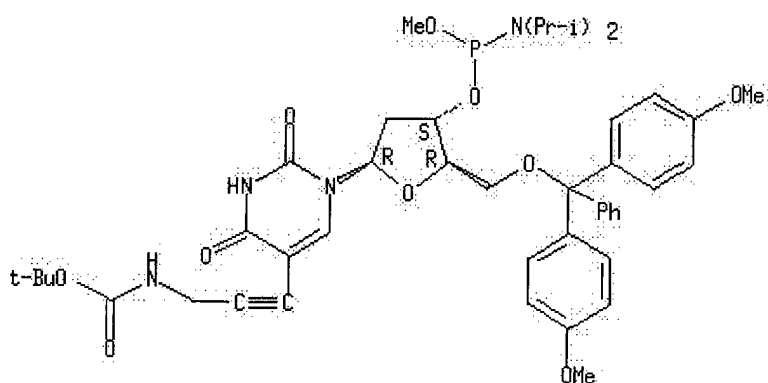
Absolute stereochemistry.



RN 114103-42-3 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1992:16706 CAPLUS

DN 116:16706

TI Preparation of fluorescence-labeled DNA by polymerase chain reaction (PCR)

IN Manabe, Nobuhisa; Uchimura, Yuka; Miyazaki, Keiko; Kato, Ikunoshin

PA Takara Shuzo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.



## STN Columbus

CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03210197	A2	19910913	JP 1990-3437	19900112 <--
	JP 3001919	B2	20000124		
PRAI	JP 1990-3437		19900112		

AB The DNA is amplified by PCR in the presence of  $\geq 1$  fluorescence-labeled nucleotides to prep. fluorescence-labeled DNA product, which is readily detectable without using radioactive substances. Amplification of human placenta DNA using c-Kr-ras/61 primers in the presence of fluorescence-labeled dUTP (FTC-AP-dUTP) was shown. The amplified DNA product was visibly detectable using immobilized oncogene probes (c-Ka-ras/61 Gly, Ser, and Val types).

IT 137993-59-0

RL: PROC (Process)

(polymerase chain reaction in presence of, for easy visible detection of amplified product)

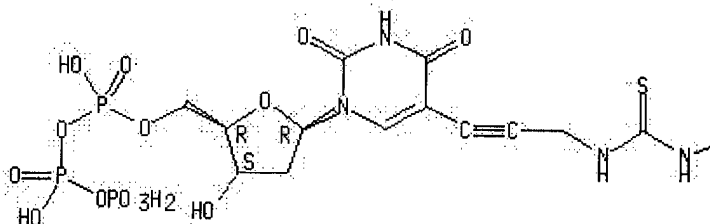
RN 137993-59-0 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]-1-propynyl]- (9CI) (CA INDEX NAME)

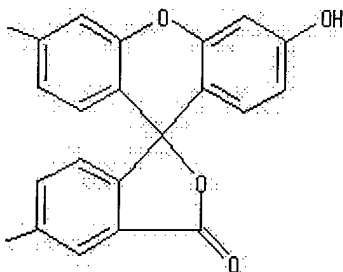
Absolute stereochemistry.

PAGE 1-A

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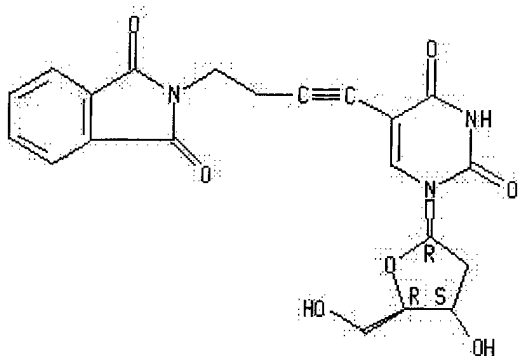


## STN Columbus

AN 1991:409259 CAPLUS  
 DN 115:9259  
 TI Preparation of crosslinking oligonucleotides as **nucleic acid**  
 hybridization probes  
 IN Petrie, Charles R.; Meyer, Richard B.; Tabone, John C.; Hurst, Gerald D.  
 PA Microprobe Corp., USA  
 SO PCT Int. Appl., 42 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9014353	A1	19901129	WO 1990-US2740	19900515 <--
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	EP 472648	A1	19920304	EP 1990-908844	19900515
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 04507402	T2	19921224	JP 1990-508242	19900515
	US 5824796	A	19981020	US 1994-334490	19941104
PRAI	US 1989-353857	A	19890518		
	US 1988-250474	B2	19880928		
	WO 1990-US2740	W	19900515		
	US 1993-49807	B1	19930420		
OS	MARPAT 115:9259				
AB	<p>R1-B-(CH2)q-Yr-(CH2)m-A1 [R1 = H, sugar (analog) moiety optionally contg. Q1, Q2, Q3, P, etc.; Q1 = OH, OP(O)(OH)2, OP(O)(OH)OP(O)(OH)2; Q2 = O, S; Q3 = CH2R2, SR2, OR2, NR2R3; R2, R3 = H, alkyl; B = <b>nucleic acid</b> base or an analog thereof; Y = functional linking group; m, q = 0, 1-8 integer; r = 0, 1; A1 = leaving group], useful as <b>nucleic acid</b> hybridization probes and therefore useful for diagnosis of diseases, were prepd. Reaction of 5-iodo-2'-deoxyuridine in DMF with 4-phthalimido-1-butyne in the presence of (Ph3P)4Pd and Et3N at 60° for 3 h gave 5-(4-phthalimido-1-butyne-1-yl)-2'-deoxyuridine, whose hydrogenation over Raney Ni gave 5-(4-phthalimidobutyl)-2'-deoxyuridine. 5-[3-(Trifluoroacetamido)propyl]-2'-deoxyuridine was prepd. similarly and converted according to known methods into 5'-O-(dimethoxytrityl)-2'-deoxyuridine-3'-(N,N-diisopropyl)phosphoramidite cyanoethyl ester, which was used in the automated synthesis of 3'-CT TCC U1TG TAG CTG-5' [I; U1 = 5-(3-aminopropyl)-2'-deoxyuridine residue]. This was reacted with N-(iodoacetoxy)succinimide to give II [U1 = 5-(3-iodoacetamidopropyl)-2'-uridine residue], whose crosslinking to a 30-mer oligonucleotide derived from human papillomavirus (HPV) was evaluated.</p>				
IT	134140-85-5P				
	<p>RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)          (prepn. and hydrogenation of)</p>				
RN	134140-85-5 CAPLUS				
CN	<p>Uridine, 2'-deoxy-5-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-butyne]-          (9CI) (CA INDEX NAME)</p>				

Absolute stereochemistry.



L5 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1989:439836 CAPLUS

DN 111:39836

TI Preparation of 5-(3-aminoprop-1-ynyl)deoxyuridine derivatives and their use for synthesis of DNA and RNA labeled with nonradioactive markers.

IN Haralambidis, Jim

PA Florey, Howard, Institute of Experimental Physiology and Medicine, Australia

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8810264	A1	19881229	WO 1988-AU207	19880624 <--
	W: AU, JP, US				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8819909	A1	19890119	AU 1988-19909	19880624 <--
	AU 598946	B2	19900705		
	EP 366685	A1	19900509	EP 1988-905594	19880624 <--
	EP 366685	B1	19941019		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 02504144	T2	19901129	JP 1988-505657	19880624 <--
	JP 2828642	B2	19981125		
	CA 1340032	A1	19980908	CA 1988-570427	19880624
PRAI	AU 1987-2666	A	19870624		
	WO 1988-AU207	A	19880624		

OS MARPAT 111:39836

AB The title nucleoside derivs. [I; Y = H, (un)protected OH; X = H, phosphonate group, P(OQ)NR<sub>1</sub>R<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub> = (un)branched, (un)substituted alkyl; Q = phosphate protecting group; Z = H, phosphate, triphosphate group; X<sub>1</sub> = (un)branched (1-15 alkyl; R = amino protecting group, A, Y<sub>1</sub>NHA; A = fluorophore (e.g. fluorescein) or other non-radioactive detectable group (e.g. biotin, avidin, colloidal Au or Ag, ferritin, and enzymes such as β-galactosidase, urease, peroxidase); γ<sub>1</sub> = (un)branched C<sub>1</sub>-10 alkylcarbonyl], useful for prepg. DNA and RNA labeled with non-radioactive detectable markers as nucleic acid hybridization probes, were prepd. Thus, coupling of 3',5'-di-O-p-toluoyl-5-iododeoxyuridine with BOCNHCH<sub>2</sub>C≡CH (BOC = CO<sub>2</sub>CMe<sub>3</sub>) in EtOAc in the presence of (Ph<sub>3</sub>P)<sub>2</sub>PdCl<sub>2</sub>, CuI and Et<sub>3</sub>N gave 84% I (Y = H, Z = X = toluoyl, X<sub>1</sub>NHR = C≡CCH<sub>2</sub>NHBOC). Sapon. of the latter with K<sub>2</sub>CO<sub>3</sub> in MeOH followed by reaction with 4,4'-dimethoxytrityl chloride (DMTrCl) in pyridine gave 68% I (X = Y = H, Z = DMTr, X<sub>1</sub>NHR = C≡CCH<sub>2</sub>NHBOC) which was treated with [(Me<sub>2</sub>CH)<sub>2</sub>N]<sub>2</sub>POMe in CH<sub>2</sub>Cl<sub>2</sub> contg. tetrazole and (Me<sub>2</sub>CH)<sub>2</sub>NH to give I [Y = H, Z = CMTr, X = P(OMe)N(CHMe<sub>2</sub>)<sub>2</sub>, X<sub>1</sub>NHR =

# STN Columbus

$C\equiv CCH_2NHB(OC)$ . The latter can be reacted by the phosphoramidite method to prep. oligonucleotides which incorporate the modified nucleoside on the 5'-end or internally.

IT 114079-33-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and acylation of, with nitrophenylaminohexanoate deriv.)

RN 114079-33-3 CAPLUS

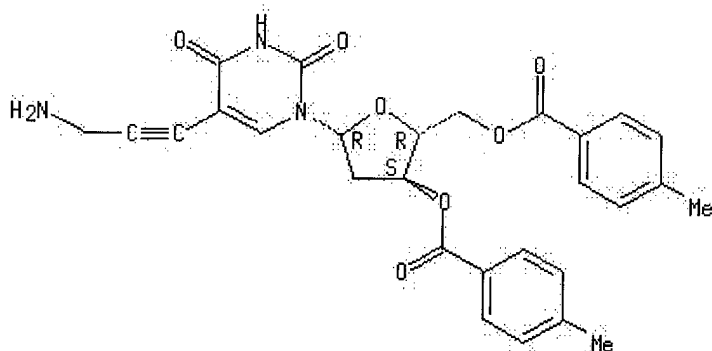
CN Uridine, 5-(3-amino-1-propynyl)-2'-deoxy-, 3',5'-bis(4-methylbenzoate), mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 114079-32-2

CMF C28 H27 N3 O7

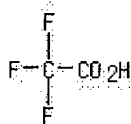
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 114079-31-1P 114079-35-5P

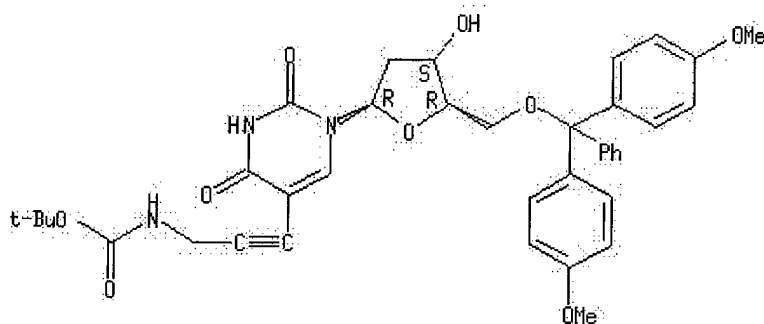
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and condensation of, with bis(diisopropylamino)methoxyphosphine)

RN 114079-31-1 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

# STN Columbus

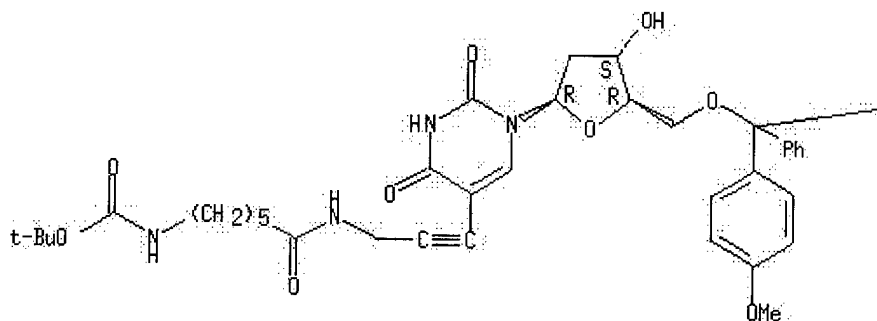


RN 114079-35-5 CAPLUS

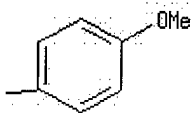
CN Carbamic acid, [6-[[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 114079-29-7P

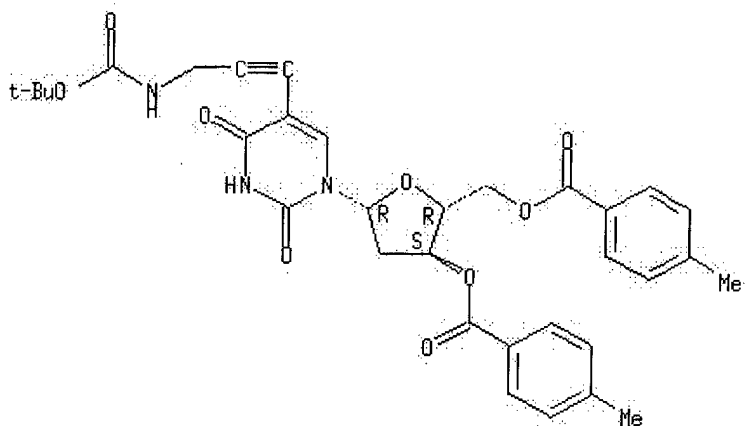
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of nucleic acid marker)

RN 114079-29-7 CAPLUS

CN Carbamic acid, [3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 114079-34-4P

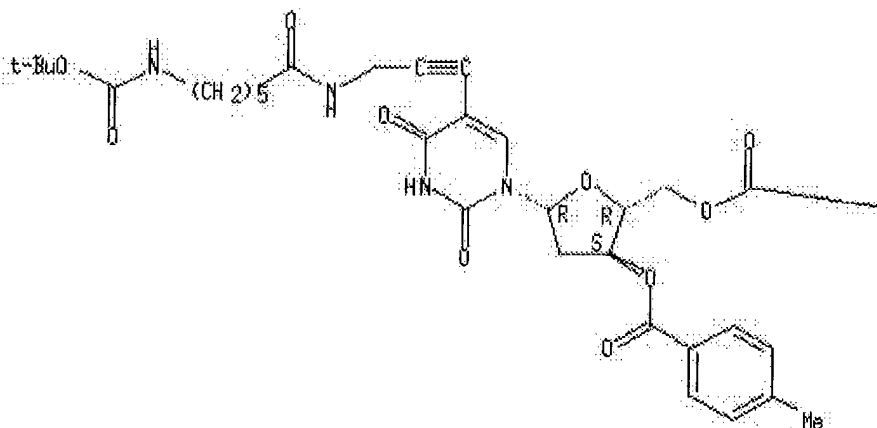
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and sapon.-alkylation of, by dimethoxytrityl chloride)

RN 114079-34-4 CAPLUS

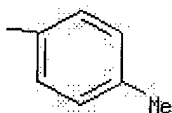
CN Carbamic acid, [6-[[3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



# STN Columbus

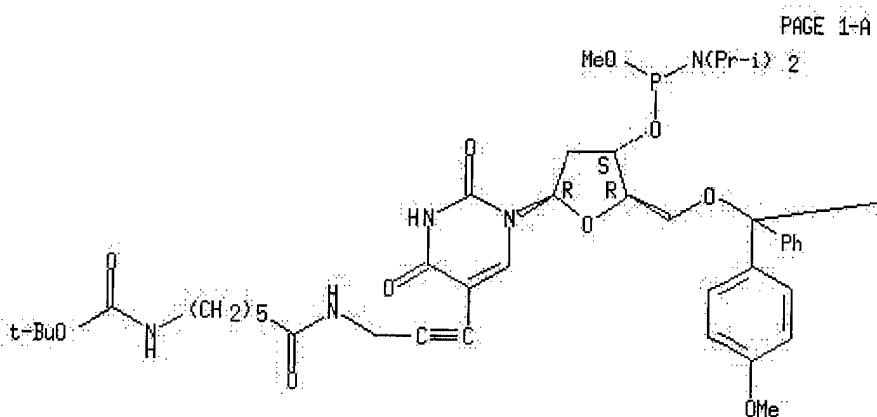
IT 114079-36-6P 114103-42-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as intermediate for nonradioactive marker-labeled  
oligonucleotides)

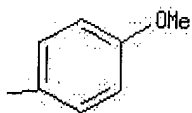
RN 114079-36-6 CAPLUS

CN Carbamic acid, [6-[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-  
[[bis(1-methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-  
pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-  
propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.



PAGE 1-B

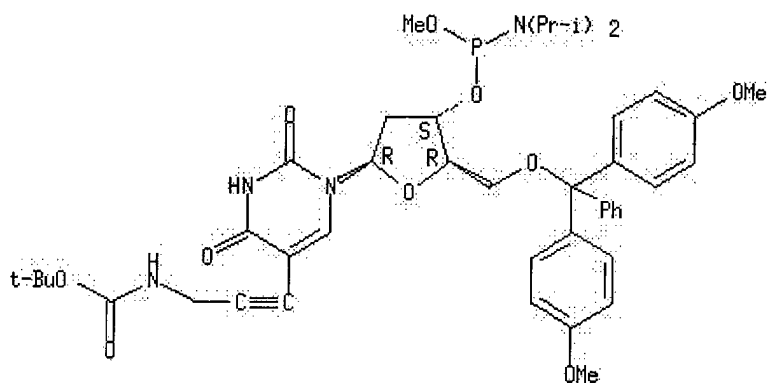


RN 114103-42-3 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-  
methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-  
pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-,  
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

# STN Columbus



=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

48.59

197.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-3.91

-3.91

STN INTERNATIONAL LOGOFF AT 14:35:17 ON 01 DEC 2003